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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/821,588      | 04/09/2004  | William K. Leonard   | 55476US041          | 1883             |

32692 7590 11/30/2005

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| EXAMINER |
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EDWARDS, LAURA ESTELLE

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

1734

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                       |  |
|------------------------------|--------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/821,588 | <b>Applicant(s)</b><br>LEONARD ET AL. |  |
|                              | <b>Examiner</b><br>Laura Edwards     | <b>Art Unit</b><br>1734               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                                   |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: _____                                                |

***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cheatham (US 2,053,601).

Cheatham teaches a smoothing station for improving uniformity of a wet coating on a substrate having a direction of travel or motion comprising (a) two or more reciprocating pick and place devices (15-20) that rotate in the direction of travel or motion (see pg. 4, lines 3-9 and lines 21-29) or (b) four or more reciprocating pick and place devices (15-20) that rotate counter to the direction of motion (see pg. 4, lines 3-9 and lines 21-29), the peripheral surfaces of the

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devices (a) or (b) being at different positions along the substrate (pg. 4, lines 41-51). Even though Cheatham is silent concerning the pick and place devices contacting and recontacting the substrate while smoothing so as to effect different lengths of contact along the coating to improve uniformity, it would have been inherent or in the alternative obvious to one of ordinary skill in the art that the Cheatham smoothing station would enable variations in lengths of contacting and recontacting along the substrate because the smoothing rollers (i.e., pick or place devices) can be driven at different speeds relative to the speed of travel of the web as evidenced by pg 4, lines 22-30. One skilled in the art would recognize and appreciate that different lengths of contacting/recontacting of the coated substrate would be effected via variation in speed of rotation of the smoothing rollers and/or variation in speed of travel of the web or substrate.

With respect to the contacting periods improving uniformity along the longitudinal direction of the travel of the web, the Cheatham device inherently enables uniformity along the direction of travel of the coated web as evidenced by pg. 4, lines 37-41.

With respect to the number of smoothing rollers used, see pg. 3, lines 18-22.

### ***Claim Rejections - 35 USC § 103***

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall (GB1278099).

Hall teaches an apparatus for improving longitudinal uniformity of a liquid coating on a substrate comprising the combination of at least two or more pick-and-place devices (3; col. 1, lines 41- 46) that rotationally move counter to the direction of travel of the substrate, the pick and place devices periodically contacting the coating and re-contact said coating along lengths of

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the substrate, the pick and place travel at different positions including the direction of travel of the substrate (see Fig. 3) or the axial direction (see Fig. 4) wherein the pick-and-place devices are out of phase with one another (see claim 5) constituting non-periodically related devices. Even though Hall does not explicitly teach different lengths or distances along which the pick-and-place devices contact and recontact the coating on the substrate, one of ordinary skill in the art would expect that the contacting distances or lengths would be different because the devices are translated or moved out of phase with one another such that the devices are not periodically related along the direction of travel of the substrate. Moreover, the apparatus of Hall can be adjusted such that the amplitude and frequency of the reciprocating motion of the smoothing rollers (i.e., pick and place devices) can be varied widely with a reduced amplitude and an increased frequency (see col. 3, lines 19-34) such that a variety of lengths of contacting/recontacting of the coating can result along the coated substrate.

With respect to claim 3 and 4, Hall recognizes two or even five pick-and-place devices being (see col. 1, lines 41-46). In addition, all the pick-and-place devices can be moved out of phase with one another such that the devices are not periodically related as evidenced by col. 1, lines 80-89.

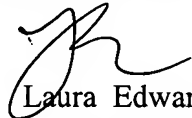
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura Edwards whose telephone number is (571) 272-1227. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Laura Edwards  
Primary Examiner  
Art Unit 1734

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November 26, 2005